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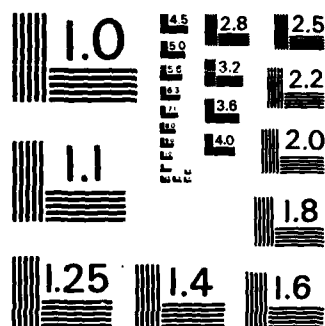R W RICE ET AL. OCT 85 TR-4-ONR N00014-84-K-0002

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Inter-Domain Fit and the Perceived Quality of Life

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Inter-Domain Fit and the Overall Perceived Quality of Life

Robert W. Rice, Michael R. Frone, and Dean B. McFarlin

Applied psychologists concerned with social indicator systems have devoted considerable effort to assessing the "perceived quality of life" (pQL), also referred to as "subjective well-being" (e.g., Andrews & Withey, 1976; Bradburn, 1969; Campbell, 1981; Campbell et al., 1976; Diener, 1984; Michalos, 1980; Warr, 1978). The perceived quality of life concerns the affective beliefs and evaluations about one's life. Such beliefs and evaluations may be directed toward life as a whole (overall pQL) or toward the individual domains comprising the totality of life (domain pQL, e.g., perceived quality of work life, or perceived quality of family life). A variety of different self-report measures have been used to operationalize the pQL concept, e.g., happiness, satisfaction, anxiety, and mood (see Andrews & Withey, 1976; and Diener, 1984; for reviews of measurement techniques).

Several pQL theorists have offered additive linear models of overall pQL (e.g., Andrews & Withey, 1976, Campbell, Converse, & Rodgers, 1976, Michalos, 1980; Rice, McFarlin, Hunt, & Near, 1985). Such models propose that overall pQL is determined by the sum of pQL reactions associated with each of the constituent domains of life. Empirical findings generally support such models. Typically, 50-60% of the variance in overall pQL can be accounted for with pQL scores from 10-20 specific domains of life (cf. Diener, 1984; Rice et al., 1985).

Despite the empirical support available for additive linear models, pQL scholars have often expressed concerns that such models may be over-simplified (e.g., Andrews & Withey, 1976; Campbell et al., 1976). Overall pQL may be determined by more than just the simple unweighted sum of pQL scores for constituent domains of life. For instance, reactions to different domains may contribute to overall pQL by interacting with one another or with other variables. Andrews and Withey (1976) examined the

possibility of interactions between domain pQL and a wide range of demographic variables. Significant interactions of this type would identify demographically defined subgroups assigning different weights to different domains when performing the cognitive calculus that produces overall pQL responses. Adopting a somewhat different approach to the search for interaction effects, several studies have weighted each domain pQL score by the perceived importance of each domain to the individual respondent (e.g., Andrews & Withey, 1976; Campbell et al., 1976). Andrews and Withey (1976) also examined the possibility of more complex, nonlinear effects by using power functions and computed cross-products of separate domain pQL scores to predict overall pQL in multiple regression analyses. Regardless of the specific approach attempted, noneq of these more complex models have been substantially more effective in predicting overall pQL than simpler additive models.

The more complex models of pQL tested in prior research may have failed to predict pQL more accurately than simple additive models because of the operational procedures adopted. These previous studies relied exclusively on statistical manipulation of domain pQL scores to represent more complex predictors of overall pQL. In contrast, the present study used direct respondent perceptions of the interdependencies among life domains to operationalize the concept of inter-domain interactions. For example, respondents were asked to evaluate the goodness of fit between their work lives and their family lives. Because this operationalization relies on individual perceptions of inter-domain fit, it provides a very different approach for representing inter-domain interactions. Such perceptions may be more useful in predicting pQL than statistically created interactions simply because pQL and perceived inter-domain fit are both subjective perceptual measures. The present study was designed to evaluate the predictive value of more complex models of overall pQL incorporating this perceptual approach to inter-domain interactions. Additional research comparing simple versus more complex models of overall pQL is important at

this time because there seem to be lingering doubts about the adequacy of simple additive models. Despite available evidence supporting additive models of overall pQL, more complex models seem to have an intuitive appeal based on the yet unsupported proposition that more complex models should be necessary to account for something as complex as overall pQL.

If additive models are, in fact, oversimplified in the sense of failing to consider inter-domain interdependencies, then perceptions of inter-domain fit should contribute substantially and positively to the prediction of overall pQL even after controlling for the effects of domain pQL. This prediction is best expressed within the context of a regression analysis. Scores representing inter-domain fit between any pair of life domains would be expected to provide a significant and substantial increment in the R value for prediction of overall pQL when entered into a regression equation that already contains measures of pQL for each of the two domains.

Kopelman, Greenhaus, and Connolly (1984) have presented a model of work-family conflict and overall life satisfaction that can be extended to provide a second, competing prediction concerning the role of perceived inter-domain fit. Consistent with other additive models of overall pQL, Kopelman et al. proposed that satisfaction with life as a whole is determined, in part, by satisfaction with work and with family. Their model is unique among additive models, however, in considering the issue of inter-domain fit. They proposed that conflict between work and family roles, which is a form of inter-domain fit, is a cause of satisfaction with work and with family. Within their model, however, such conflict has no direct effects on overall life satisfaction. Any effect of work-family conflict on overall life satisfaction is mediated through indirect effects on domain satisfaction responses. The Kopelman et al. model is also unique among models of work-nonwork conflict in that such models typically consider domain pQL and overall pQL responses simply as alternative measures of well-being; such models fail to specify the causal

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relationships among these alternative types of pQL measures (e.g., Cooke & Rousseau, 1984).

Although the Kopelman et al. model clearly goes further than other models in specifying the causal relationships among work-family conflict, job satisfaction, and life satisfaction, their model is limited in that it considers inter-domain fit between just one pair of life domains (work and family) and just one class of overall pQL response (life satisfaction). If, however, we extend this model to include domains other than work and family, and measures of overall pQL other than life satisfaction, we can derive the general prediction that measures of perceived inter-domain fit will not add substantially to the prediction of overall pQL.

The purpose of the present study was to test these two competing predictions concerning the incremental effects of including measures of perceived inter-domain fit when predicting overall pQL. As advocates of an additive model of overall pQL (Rice et al., 1985), we expected that predictions based on the Kopelman et al. model would be supported even when using perceived measures of inter-domain fit to create more complex models of overall pQL.

Method

The predictive value of perceived inter-domain fit was tested through secondary analyses of data collected in the 1977 Quality of Employment Survey (Quinn & Staines, 1979). Household interviews were conducted with a national probability sample of 1515 adults engaged in paid employment at least 20 hours per week.

Measurement Procedures

Overall pQL. There is general agreement among pQL researchers that this concept requires the use of multiple measures; no single measure of overall pQL has come to be accepted as a standard criterion score (Diener, 1984). The Quality of Employment Survey provided three measures of overall pQL that seemed particularly useful in

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light of extensive prior use and their potential relevance to the concept of
inter-domain fit. The first measure, Life Ratings, was the mean of eight semantic
differential ratings of current life experiences; respondents described their lives
in terms such as disappointing-rewarding, boring-interesting. These adjective pairs
were developed by Campbell et al. (1976) and comprise part of their overall
well-being index. The second measure, Satisfaction, was a single item asking
respondents how satisfying they found their lives. This overall life satisfaction
item was similar to, but not identical with, the single item satisfaction questions
used extensively by Campbell et al. (1976), Andrews and Withey (1976), and others.
The third measure, Happiness, was a single item developed by Bradburn (1969) and used
in many subsequent studies of pQL. This item asked respondents to indicate how happy
they were with the way "things are these days."

Domain pQL. The Quality of Employment Survey provided measures of domain pQL
for work and two crucial nonwork domains: leisure and family. The Michigan
facet-free job satisfaction scale (Quinn & Staines, 1979) provided the measure of
Work pQL; this five item scale assessed different general reactions to the job, e.g.,
direct ratings of satisfaction with current job, willingness to recommend the job to
a friend, and desire to get a different job. A single item concerning satisfaction
with free-time activities was used to assess Leisure pQL. A score for Family pQL was
calculated for married respondents answering at least two of three questions
concerning marriage and family. Married respondents were asked separate questions
concerning "how happy" and "how satisfied" they were with their marriage. Married
respondents with children under 18 in the household were also asked how satisfied
they were with their "family life."

Inter-domain Fit. There were two measures of the perceived fit between life
domains. The first, Work-Family Fit, asked respondents to indicate how much "your
job and your family life interfere with each other." The second measure,

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Work-Leisure Fit, was a parallel question asking about interference between job and free-time activities. Prior to our analyses, we reverse scored both interference items so that high scores would indicate good inter-domain fit, i.e., the absence of interference.

In the interest of brevity, we have not presented verbatim statements of the questionnaire items used in our analyses. However, an appendix providing such information is available from the senior author.

Descriptive Statistics

Table 1 presents the means, standard deviations, and intercorrelations for the measures used in this study. The principal diagonal of this matrix presents the reliability estimates for all multi-item measures. Because of the large sample size, even the smallest correlation ($r=.09$) in Table 1 is statistically significant. The three measures of overall pQL were correlated substantially with each other (r's= .50-.54). The correlations among the three measures of domain pQL were also positive, but the magnitude of these intercorrelations was not as great as for the measures of overall pQL (r's= .14-.27). The correlations between domain pQL and overall pQL were intermediate in magnitude (r's= .28-.46) and the two inter-domain fit measures were correlated substantially ($r=.49$). Finally, there was a positive relationship between inter-domain fit and pQL. Each of the 12 correlations between the six pQL measures and the two inter-domain fit scores was positive and significant at $p < .01$ (r's= .09-.32).

Insert Table 1 about here

Results

In each hierarchical regression testing the effects of inter-domain fit, one of

the three overall pQL measures served as the dependent variable. The two relevant

domain pQL measures served as Step 1 predictors and the relevant measure of

inter-domain fit was the Step 2 predictor. As shown in tables 2a and 2b, substantial

variance in overall pQL could be accounted for with a simple additive model using

just two domain pQL measures (24-30% based on work and family domain pQL, and 16-20%

based on work and leisure domain pQL). The effort to substantially improve upon this

level of prediction with a more complex model incorporating perceived inter-domain

interactions was not successful. Work-Family Fit and Work-Leisure Fit both provided

significant Step 2 increments in predictions of Life Ratings and Satisfaction, but

not Happiness. However, these statistically significant effects were very small; the

measures of perceived inter-domain fit never added as much as a one-half of one

percent increment to the prediction of overall pQL. It was possible for such small

effects to achieve significance because of the large sample used in these analyses.

Insert Table 2 about here

Discussion

The present results are more consistent with the prediction derived from the

Kopelman et al. (1984) model of work-family conflict than with the prediction

derived from the assumption that additive models are oversimplified. Although

statistically significant with the very large sample sizes involved, the predictive

increments provided by measures of perceived inter-domain fit were too small to have

either theoretical or practical significance. Given the magnitude of these effects,

we conclude that the perceptual approach to inter-domain interactions used in the

present study was no more successful in improving upon simple additive models than

the data manipulation approaches used in previous research (e.g., Andrews & Withey,

1976; Campbell et al., 1976). The results of the present study, in conjunction with

the results of other efforts to test more complex models of overall pQL, suggest that simple additive linear models are quite adequate. Even though intuition may lead many observers to fear that additive models are oversimplified, empirical research indicates that prediction of overall pQL is not substantially improved by various approaches incorporating more than just the sum of domain pQL scores. Given this body of supporting empirical evidence, it seems quite appropriate for pQL researchers to base their theories and empirical research on additive models.

One such line of research worthy of consideration concerns the mediating role of domain pQL. If the effects of perceived inter-domain fit are actually mediated by domain pQL as suggested by Kopelman et al., they would be expected to have no association with overall pQL that is independent of the two relevant domain pQL scores. The results of the present study fit such expectations. Our results suggest that it would be useful for future research to investigate the causal mechanisms through which inter-domain interactions may exert influence on relevant domain pQL responses. Rice et al. (1985) suggest three possible mechanisms that might be investigated in such research: A) the perceived availability of specific outcomes, B) the personal standards used to appraise such outcomes, and C) the subjective importance associated with particular outcomes.

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Table 1

Means, Standard Deviations, Intercorrelations

and Reliabilities for Major Variables

Variables	1	2	3	4	5	6	7	8
1. Life Ratings	(89)							
2. Satisfaction	50	--						
3. Happiness	51	54	--					
4. Work PQL	36	32	33	(76)				
5. Family pQL	46	40	45	14	(86)			
6. Leisure PQL	33	33	28	19	27	--		
7. Work-Family Fit	18	18	13	20	17	32	--	
8. Work-Leisure Fit	18	18	12	20	09	29	49	--
M	5.64	3.09	3.36	.00	4.23	3.14	2.76	2.79
SD	1.05	1.01	1.13	.60	.70	.75	.93	.95

Note. Decimals omitted; Entries on the main diagnoal are reliability estimates (Coefficient Alpha); Work PQL is the sum of Z-scores; With minimum N=1000, all correlations are significant $r > .061$ at $p = .05$ and $r > .082$ at $p = .01$ (two-tailed).

Table 2a

Unstandardized Regression Coefficients and Increments in R^2

for the Effects of Work pQL, Family pQL, and

Work-Family Fit on Criterion Measures

| | Criterion Measures | | |
Predictors	Life Ratings	Satisfaction	Happiness
Work pQL	.510***	.460***	.512***
Family pQL	.625***	.523***	.681***
Work-Family Fit	.060*	.066*	.012
R^2 without Work-Family Fit	.300***	.236***	.277***
R^2 with Work-Family Fit	.303***	.240**	.277***
R^2 Increment due to Work-Family Fit	.003*	.004*	.000

*p<.05, **p<.01, ***p<.001

Table 2b

Unstandardized Regression Coefficients and Increments in R^2

for the Effects of Work pQL, Leisure pQL, and

Work-Leisure Fit on Criterion Measures

Predictors	Criterion Measures		
	Life Ratings	Satisfaction	Happiness
Work pQL	.539***	.461***	.531***
Leisure pQL	.384***	.376***	.343***
Work-Leisure Fit	.057*	.056*	.001
R^2 without Work-Leisure Fit	.199***	.179***	.156***
R^2 with Work-Leisure Fit	.201***	.182***	.156***
R^2 Increment due to Work-Leisure Fit	.002*	.003*	.000

*p<.05, **p<.01, ***p<.001

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